

ABSTRACT OF THE DISCLOSURE

The present invention provides a semiconductor device wherein the turning-off time thereof can be reduced substantially and, at the same time, the turned-on resistance thereof can also be prevented effectively from increasing as well. Lattice defects are distributed at a high concentration in a defect region an area in close proximity to the boundary surface between an n drift region and a p⁺ substrate. The half-value width of the distribution is set at a value which is large enough for the defect region to include a non-depletion region in the n drift region. However, the defect region is not spread to cover a diffusion layer. In this way, the turning-off time of the semiconductor device can be reduced considerably without being accompanied by an increase in turned-on resistance thereof. In addition, by employing an absorber with an uneven surface, the distribution of lattice defects can be obtained by carrying out radiation of ions at only one time.

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